



Needs Assessment

Chatham County

CSXT DePriest Signal Shop June 6, 2005

Introduction

Several residents living near CSXT DePriest Signal Shop (CSXT) in Savannah, Georgia have expressed concerns about lead and arsenic contamination found in soil on the playgrounds of East Broad Street Elementary School (EBES) and Mother Matilda Beasley Park (MP), both of which are located adjacent to CSXT.

In response, the Georgia Division of Public Health (GDPH) designed an environmental health education needs assessment to help in working collaboratively with residents living near CSXT to identify public health concerns and develop an action plan to address those concerns. Information collected from community members affected by hazardous substances in the environment was compiled to help make a determination about the education activities that would best serve the community.

Site Description and History

CSXT is located in Savannah, Chatham County, Georgia. Residential neighborhoods and Hubert Middle School are located east of the site. MP and EBES are located west of, and adjacent to CSXT. Residential neighborhoods and the Savannah River are located north of CSXT. Residential neighborhoods are also to the south of the site. The population within one mile of CSXT is approximately 17,790 people.

The CSXT property contains three buildings that make up the signal shop, a parking lot, and a grassy yard with vegetation. The property is fenced and a gated entrance to the site is guarded and locked after hours.

Historical site activities included passenger transport, freight transport, and locomotive repair facilities. By 1916 all rail and transport related activities ceased and, as of 1990, railroad maintenance, repair, and storage were discontinued. The signal shop is still in operation where maintenance of rail signals is performed.

Gathering Community Concerns

GDPH staff visited the site in 2003 and 2004 to assess the site and to gather community concerns. GDPH decided the best approach would be to work with residents living near CSXT to conduct a formal

community needs assessment to identify their environmental health education needs and to develop education programs to meet those needs. On October 9, 2003, a Community Advisory Council (CAC) was formed with representatives from Citizens for Environmental Justice and the Eastside Concerned Citizens Neighborhood Association, the Chatham County School Board, and other officials and residents who represented the community. The function of the CAC was to represent residents' concerns to the school board and CSXT and take part in communicating the risks posed to children and other residents accessing these properties. GDPH attended several CAC meetings to interview residents and document concerns.

In October 2003, GDPH issued a Notice of Involvement describing planned public health actions, and providing contact information to encourage residents to contact us with their health concerns. The Notice of Involvement was sent to several residents who had contacted us with health specific questions, to CAC members, the Chatham County Health Department, and to the School Board.

Also in October 2003, GDPH staff conducted approximately 10 interviews with citizens and officials to gather concerns and feedback about contamination levels and planned remediation activities.

The Chatham County Health Department offered blood lead level testing to all residents in the area. On November 5th and November 22nd, nearly 200 individuals were tested for elevated blood lead levels. All blood lead level tests were below 10 micrograms of lead per deciliter of whole blood ($\mu\text{g}/\text{dL}$).

Public meetings were held on November 13, 2003 and January 8th, March 25th and May 6th of 2004. Representatives from the Chatham County Health Department and the GDPH attended each meeting to answer health-related questions, provide contact and referral information, and to gather community concerns. Media coverage included locally printed news and television news features and was examined to collect additional community concerns. GDPH developed site-specific fact sheets about exposure to lead and arsenic



in soil and distributed them to residents at public meetings and to CAC members.

In late 2003 and early 2004, GDPH developed and distributed an environmental health needs assessment survey to formally collect community concerns about exposure to lead and arsenic in soil at EBES and MP.

Community Survey

During fall 2003, GDPH developed a community survey to gather information about residents' knowledge, attitudes, beliefs, practices, behaviors, and concerns about contaminated soil found at EBES and MP. From January to March 2004, the survey was distributed to EBES staff, residents with children attending EBES, and those who access MP. The survey was distributed and collected by community members, EBES and GDPH staff at community meetings and by door-to-door canvassing. In addition, community concerns were also gathered through interviews with residents, local officials, government agency staff, through local media coverage, and at community meetings.

Two hundred surveys were distributed between November, 2003 and March, 2004. Residents worked together with GDPH to distribute the surveys door-to-door, to EBES, to Community Advisory Council (CAC) members, and at public meetings. Completed surveys were returned to GDPH by return mail and by fax as directed on the survey.

Results

Over the five month collection period, GDPH collected 34 surveys for a 17% return rate. Participants were asked to provide information about basic demographics, whether their children were students at EBES or play in MP, household members who worked for or currently worked at EBES or MP. They were also asked about their health concerns regarding lead and arsenic contamination. Survey questions were analyzed and compared using analytic techniques appropriate for community survey design. Survey data was reviewed by GDPH staff and cross checked for accuracy by random verification by comparing database entries with the actual surveys.

Overall, the survey results indicate that there is a concern about lead and arsenic contamination within the community. Data suggest a trend that those who have children in their homes who attend EBES have greater

levels of concern about contaminants than other residents, and that lead contamination is of greater concern than arsenic contamination. In addition:

- The majority of respondents have children in their household who attend EBES; and many respondents work at EBES. Only about a fifth of respondents visit MP.
- About half of respondents have concerns about lead and arsenic contamination and, of those, most were concerned about children's and personal health.
- Most respondents prefer to receive information through newspaper ads/articles and fact sheets delivered to their home.
- More residents with children in their home attending EBES are concerned about lead and arsenic contamination.
- Less than half of EBES employees are concerned about lead and arsenic contamination.

Conclusions

Conclusions are based on information gathered through the surveys, and are as follows:

- Few residents are concerned about lead and arsenic contamination; therefore, we can conclude that there is no need for an extensive education programs in this area.
- Most of those participants who have children in their home that attend EBES are concerned about lead and arsenic contamination. Health education materials should be targeted to parents of students.
- The most popular ways for residents to receive environmental health education are through newspapers and fact sheets delivered to the home.

Recommendations

The information gathered from the community survey indicates that future education efforts should include:

- A brief summary of each health consultation and other documents prepared by GDPH for the CSXT site.
- Newspaper articles and fact sheets mailed to homes informing and educating residents about lead/arsenic contamination.
- Attending CAC meetings to allow information sharing and distribution within the community.
- Keeping community activists informed about public health information and activities so they can share information with others.
- Considering general environmental health education in school.